# Phase III : Final Project

## Due: Dec 3, 2018

For this Phase III of the final project, the IoT exists. So implement the sensors/actuators in the RPi boards as separate Java Classes with their own MySQL databases. The RPi boards and the laptop coexist in the same WiFi network provided by the router, and the RPi boards communicate with the Laptop server using sockets. For this phase, all nodes in the IoT can be dynamically integrated and removed – so use NMap for auto-detection of IP address and roles of the IoT nodes.

**Deliverables:**

1. App on your mobile device
2. Htdocs php codes on your server
3. Java codes for sensors/actuators running on the RPi boards
4. All databases
5. Server-Client Socket Communication codes for the laptop and the RPi boards (with NMap integration)
6. Webcam integration with RPi boards, feeding app through server, with record on server facility
7. Breadboard integration with RPi boards (for sensor/actuator controllability/observability) OR java scripts to simulate memory-mapped I/Os